

Mineral Industry Surveys

For information, contact:

Joyce A. Ober, Sulfur Commodity Specialist
U.S. Geological Survey
983 National Center
Reston, VA 20192
Telephone: (703) 648-7717, Fax: (703) 648-7757
E-mail: jober@usgs.gov

Raymond I. Eldridge III (Data)
Telephone: (703) 648-7793
Fax: (703) 648-7792
E-mail: reldridg@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

SULFUR IN OCTOBER 2004

During the month, production of recovered elemental sulfur was 762,000 metric tons, according to the U.S. Geological Survey. October production was slightly higher than that of September 2004 and 7% higher than that of October 2003. Shipments were slightly higher than those of September 2004. Producers' ending stocks for October 2004 were 180,000 tons.

Import and export data for October 2004 were not available at the time of publication and will be published in the Sulfur in November 2004 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for September 2004

were estimated to be 241,000 tons; exports were 89,000 tons. Imports of sulfuric acid for September 2004 were 206,000 tons; exports were 11,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports especially material from Canada. The revised figures are based on Census information, and data from personal communications with industry experts. Better strategies for estimating import data from Canada are being explored.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources
	Petroleum ²	Natural gas	Total	
2003:				
January-December	6,970	1,950	8,920	8,910
January-October	5,720	1,620	7,350	7,330
October	548	166	714	715
November	615	160	775	783
December	630	168	798	804
2004:				
January	577	165	742	762
February	525	155	679	690
March	598	176	774	783
April	610	161	772	771
May	609 ^r	170 ^r	780	775
June	615	163	778	778
July	648	173	820	812
August	652	172	823	838
September	595	155 ^r	750 ^r	755 ^r
October ^p	602	160	762	774
Total	6,030	1,660	7,680	7,740

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes a small quantity from coking operations.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³
2003:						
January-December	2,080	32,000	535	26,500	2,810	69,100
January-September	1,600	21,900	401	18,000	2,130	45,500
September	160	2,910	44	2,070	213	6,160
October	160	2,460	49	2,470	229	5,760
November	160	2,850	45	2,170	205	6,860
December	160	2,770	40	1,960	230	6,180
2004:						
January	178	1,720	50	2,400	265	5,850
February	167	3,130	35	3,050	232	7,930
March	178	3,660	25	2,570	223	7,210
April	180	3,060	54	2,550	279	8,040
May	187	2,830	57	2,680	272	6,880
June	180	2,560	49	2,440	247	5,980
July	166	2,790	54	2,550	257	7,150
August	166	2,050	35	1,780	227	5,290
September ^e	161	2,460	49	2,620	241	6,850
Total	1,560	22,200	408	22,700	2,240	61,200

^eEstimated.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and PentalSul North America Sulphur Service.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2003:									
January-December	387	126	16,200	266	86	5,870	905	298	28,800
January-September	278	91	11,300	244	79	5,070	655	216	21,000
September	22	7	1,150	9	3	382	70	23	2,230
October	35	11	1,520	1	(4)	36	104	34	1,550
November	33	11	1,590	1	(4)	36 ^e	71	23	3,350
December	41	13	1,880	20	7	734	75	25	2,900
2004:									
January	97	32	3,930	--	--	--	114	37	4,610
February	179	58	7,480	21	7	488	204	69	8,450
March	167	54	6,760	6	2	163	176	58	7,280
April	203	66	7,710	14	5	344	221	72	8,410
May	190	62	7,230	22	7	555	222	72	8,120
June	166	54	6,350	11	3	247	192	63	7,860
July	160	52	5,660	10	3	357	172	56	6,230
August	133	43	4,920	33	11	937	194	63	6,250
September	150	49	5,080	29	9	1,090	206	67	6,480
Total	1,450	470	55,100	146	47	4,180	1,700	557	63,700

^eEstimated. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

⁴Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF SULFUR AND SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value ²	Quantity	Sulfur content	Value ²
2003:					
January-December	742	46,100	207	68	18,800
January-September	575	22,900	172	56	15,100
September	50	2,090	23	7	1,910
October	72	4,360	12	4	1,200
November	27	4,880	12	4	1,170
December	67	3,920	12	4	1,360
2004:					
January	18	1,740	10	3	1,120
February	6	1,530	13	4	1,520
March	84	5,930	14	5	3,190
April	107	6,550	11	4	1,380
May	81	4,040	10	3	2,370
June	36	1,980	26	8	1,610
July	30	1,670	13	4	1,280
August	134	10,100	40	13	3,210
September	89	5,630	11	4	1,090
Total	585	39,200	148	48	16,800

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports ^e	Consumption
2003:			
January-December	8,170	2,810	11,000
January-September	6,850	2,120	8,960
September	658	213	871
October	643	229	872
November	756	205	961
December	731	230	961
2004:			
January	744	265	1,010
February	684	232	916
March	699	223	922
April	664	279	943
May	694	272	966
June	742	247	989
July	782	257	1,040
August	704	227	931
September	666	241	907
Total	6,380	2,240	8,620

^eEstimated.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Calculated as shipments minus exports.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT¹

(Thousand metric tons)

District and source	October 2004 ^p		September 2004		Total 2004 ²		Year to date 2003 ^{r,2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	20	21	19	20	200	204	190	192
Natural gas	2	1	1	1	17	17	21	22
Total	22	22	20	21	217	221	211	214
PAD 2:								
Petroleum and coke	78	78	73	75	734	748	750	744
Natural gas	4	4	4	4	35	36	37	37
Total	82	82	77	79	769	784	787	780
PAD 3: ³								
Petroleum and coke	395	401	381	380	3,960	3,990	3,610	3,630
Natural gas	40	42	33	30	421	421	512	511
Total	435	444	414	410	4,380	4,410	4,130	4,140
PAD 4 and 5: ⁴								
Petroleum and coke	108	107	121	121	1,130	1,140	1,170	1,140
Natural gas	115	120	118 ^r	124 ^r	1,180	1,180	1,050	1,050
California	76	74	95	94	851	847	899	885
Total	223	227	239 ^r	245 ^r	2,310	2,320	2,220	2,200
Grand total	762	774	750 ^r	755 ^r	7,680	7,740	7,350	7,330

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revisions to prior months.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

	2004			2003
	October	September	Year to date	total
Production	9.00	9.15 ^r	9.22	8.92
Shipments	9.14	9.21 ^r	9.28	8.91
Exports of sulfur	NA	1.09	0.78	0.74
Imports of sulfur:				
Canada	NA	1.96 ^e	2.09 ^e	2.08
Mexico	NA	0.60	0.55	0.54
Total ²	NA	2.94 ^e	3.00 ^e	2.81
Export of H ₂ SO ₄	NA	0.13	0.20	0.21
Import of H ₂ SO ₄ :				
Canada	NA	1.83	1.93	0.39
Europe	NA	0.35	0.20	0.27
Total ²	NA	2.51	2.27	0.91
Consumption: ³				
Domestic sources	NA	8.13	8.52	8.18
Imports	NA	2.94 ^e	3.00 ^e	2.81
Total	NA	11.07	11.52	11.00
Sulfur export values ⁴	NA	\$63	\$67	\$62
Sulfur import values: ⁴				
Canada	NA	\$15	\$14	\$15
Mexico	NA	\$53	\$56	\$50
Average	NA	\$28	\$27	\$25
H ₂ SO ₄ export values ⁴	NA	\$99	\$113	\$91
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$34	\$38	\$42
Europe	NA	\$38	\$29	\$22
Average	NA	\$31	\$37	\$32

^eEstimated. ^rRevised. NA Not available.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other countries not listed.

³Because September trade data were not available, September consumption was not determined.

⁴Average value per ton for most recent data available.